

ULTRA THIN CHANNEL MOSFET

ABSTRACT OF THE DISCLOSURE

Described is a method for making thin channel silicon-on-insulator structures. The inventive method comprises forming a set of thin spacer abutting a gate region in a first device and a second device region; forming a raised source/drain region on either side of the gate region in the first device region and the second device region, implanting dopants of a first conductivity type into the raised source drain region in the first device region to form a first dopant impurity region, where the second device region is protected by a second device region block mask; implanting dopants of a second conductivity type into the raised source/drain region in the second device region to form a second dopant impurity region, where the first device region is protected by a first device region block mask; and activating the first dopant impurity region and the second dopant impurity region to provide a thin channel MOSFET.